Edward Huang

(416)-627-0578 | e224huan@uwaterloo.ca | LinkedIn | GitHub | Website

Education

University of Waterloo Expected Graduation: Apr 2029

Honours Computer Science and Finance *GPA: 3.9/4.0*

Relevant Coursework: Algorithm Design and Data Abstraction, Data Structures and Algorithms, Financial Markets and Data Analytics, Interpreters and Compilers, Business Stages and Accounting

Technical Skills

Languages: Python, C/C++, Java, Rust, JavaScript/TypeScript, Haskell, SQL, HTML/CSS
Frameworks: React.js, Node.js, Django, Express.js, MongoDB, PostgreSQL
Technologies: Git/Github, Pytorch, TensorFlow, Scikit-Learn, YFinance, Pandas, NumPy, Matplotlib/Seaborn

Experience

Full Stack Software Engineer Apr 2025 – Aug 2025

DAItaflow Software Technology *Mississauga ON*

- Developed a **React.js/Django** application to process and input the Excel spreadsheet cost forecasts from the vendors and subcontracters of **100+ clients** directly into the construction-management platform Procore, eliminating **60% of manual data-entry** and **accelerating cost-forecast updates by 80%**
- Designed and implemented **Django REST Framework APIs** and **PostgreSQL** schemas to support cost-forecast ingestion and processing, including data validation, error handling and batch processing
- Created comprehensive **unit and integration tests** for cost-forecast imports, increasing **code coverage from 40% to 80%** and enabling the system to **process 200 imports/hour** with a 99% success rate
- Engineered interactive charts to visualize budget vs. actual spend and project-lifetime forecasts, automatically alerting managers to variances while reducing cost-overrun detection and **reporting time by 50%**
- Enabled seamless client login by integrating Auth0 with Microsoft, Google, LinkedIn, and Procore SSO providers, **reducing average login time by 40%** and enhancing authentication convenience
- Revamped navigation, dashboard, settings, and profile pages to align with company branding, adding animations, custom icons, and interactive permission switches to boost user task efficiency by 30% and satisfaction by 25%
- Collaborated in team of 5 on sprint planning, backlog refinement, and daily stand-ups, submitting code for review and **driving 100% sprint goal completion** and on-time delivery of product features with zero critical bugs

Projects

Full-Stack Pomodoro, Productivity and Task-Management App | *JavaScript, MERN Tech Stack* Feb 2024

- Designed and developed a full-stack Pomodoro timer app with an integrated to-do list, boosting productivity by 30% for 20+ university students as measured from in-app analytics
- Implemented secure user authentication with encrypted login and registration, leveraging **MongoDB** for storage of usernames, passwords, tasks, and productivity metrics
- Engineered dynamic donut pie charts with **React** and Chart.js to visualize real-time productivity metrics, integrating **Node.js/Express.js** APIs with MongoDB for **persistent data storage** and historical trend analysis

Sentiment-Driven Neural Network Stock Price Predictor | *Python, PyTorch, Pandas* Sep 2024 – Jan 2025

- Led a team of 4 to develop a sentiment-driven neural network trained on Food and Drug Administration related articles, achieving 94.6% accuracy on biotech stock fluctuations
- Secured **$250,000** in investor funding to deploy and validate model performance in live trading
- Designed a Multi-Layer-Perceptron (MLP) neural network, enhancing predictive accuracy by 15% over the baseline model by using 8+ layers and ReLU activations
- Developed a scalable backend system that collected, cleaned, and computed key financial metrics for 1,300,000+ YFinance datasets, detecting price changes, normalization, calculating percentage changes and other key statistics to facilitate model training across 400+ epochs

Credit Card Fraud Detection Using Machine Learning | *Python, Scikit-Learn, Pandas* Dec 2024

- Engineered a fraud detection system that achieved 87.9% fraud detection accuracy by addressing class imbalance using the SMOTE oversampling technique and employing Random Forest classifiers
- Optimized model hyperparameters with GridSearchCV, boosting prediction accuracy by 2% and reducing false positives by 4% – minimizing manual fraud review costs